FEops, headquartered in Gent, Belgium, has developed FEops HEARTguide™, a proprietary system to improve transcatheter valve procedures based on personalized computer simulations. Its first product, TAVIguide™, is currently the only CE-marked technology on the market that predicts how a TAVI implant will interact with the patient-specific aortic anatomy and thus provide clinically meaningful insights into the personalized device size selection and position. FEops’ pipeline extends to dedicated planning tools with unique potential in driving forward the development, testing and market adoption of new and improved device-based solutions in the structural heart space.

- **DESPITE THE RAPID ADOPTION OF TRANSCATHETER-BASED INTERVENTIONS TO TREAT STRUCTURAL HEART DISEASE, SEVERE COMPLICATIONS STILL EXIST.** In the TAVI field, the main complications are ParaValvular Leakage (PVL) and Permanent Pacemaker placement (PPO), occurring in more than 20% of the procedures for some of the commercially available TAVI devices. In the mitral space, concerns arise regarding leakage and/or potential obstruction of the left ventricular outflow tract after transcatheter mitral valve replacement. For the left atrial appendage, the geometry of the target lesion is so complex and diverse that operators require on average 1.2 to 1.4 devices per patient, indicating that in more than 20% to 40% of the cases the wrong device size is chosen, and this percentage can be significantly higher for lower-experienced operators. How can transcatheter-based structural heart interventions be made safer and more effective?

- **FEops HEARTguide™ PROPRIETARY ARRAY OF PRODUCTS** use advanced computer simulations to provide clinicians and valve manufacturers with first-ever insights into the interaction between valve and specific patient anatomy preoperatively. Such insights have tremendous power to accelerate research and development of novel valve-based solutions, as well as ultimately improve clinical outcomes in real-world hospital settings.

- **INITIAL COMMERCIAL PRODUCT HAS SIGNIFICANT COMPETITIVE ADVANTAGES.** TAVIguide™ is the only available CE-marked simulation technology for TAVI. FEops has built a strong collaborative network with device manufacturers and KOLs. Use of TAVIguide™ shows positive health economics; and, it does not require any devices (compared to 3D printing, for example). TAVIguide™ currently includes simulations of Medtronic’s CoreValve® and CoreValve® Evolut™, and Boston Scientific’s Lotus™ Valve System. The predictive power of the FEops simulations relating to frame deformation, native leaflet calcification displacement and paravalvular leakage has clearly been demonstrated in large retrospective cohorts and the data published in the JACC: Cardiovascular Interventions, and EuroIntervention.

- **THE FEOPS PLATFORM INCLUDES A PIPELINE OF PRODUCTS.** Structural heart disease manifests itself in several etiologies affecting different regions of the heart. FEops’ focus is on the four distinct emerging transcatheter interventions for structural heart disease: TAVI, MITRAL, LAAC, TRICUSPID (see below).

- **FEOPS IS LED BY CEO DR. MATTHIEU DE BEULE, A PROFESSOR OF COMPUTATIONAL BIOMECHANICS** at Ghent University (Belgium). He has 108 scientific publications to his credit in peer-reviewed journals such as the JACC: Cardiovascular Interventions, Biomedical Engineering, Eurointervention, Interventional Cardiology, and the Journal of Biomechanics.

- **FEOPS’ BOD IS LED BY ROB MICHELS, ONE OF THE MOST SUCCESSFUL EXECUTIVES AND INVESTORS IN THE TRANSCATHETER VALVE REPLACEMENT INDUSTRY.** Rob played a key role in the exit of CoreValve, which was acquired by Medtronic in 2009 for $850 million, and in the exit of CardiAQ Valve Technologies, which was acquired by Edwards Lifesciences in 2015 for $400 million. “Rob’s experience is a valuable asset for FEops as we move forward in transforming the way heart valve disease is treated,” says Dr. Matthieu De Beule, Co-Founder of FEops.

**FEOPS’ PIPELINE FOR TRANSCATHETER STRUCTURAL HEART INTERVENTIONS**

1. **Transcatheter Aortic Valve Implantation (TAVI).**
   - In 2015, about 75,000 TAVI procedures were performed worldwide.
   - Based on expanding indications for TAVI interventions, 250,000 procedures are expected worldwide in 2020.

2. **Transcatheter Mitral Valve Repair/Replacement.**
   - Market potential for minimally invasive treatments of mitral valve disease is expected to be five times the size of the TAVI market.
   - The mitral market is expected to start commercialization in 2018.

3. **Transcatheter Tricuspid Valve Repair/Replacement.**
   - Market potential for minimally invasive treatments of mitral valve disease is expected to be five times the size of the TAVI market.
   - The tricuspid market is expected to start commercialization in 2018.

4. **Left Atrial Appendage Closure**
   - Market potential is estimated, conservatively, at 50,000 interventions per year by 2019.
   - The LAA has many, very complex geometric structures which make preoperative simulation planning critically important.

**CAUTION: The FEops™ TAVIguide™ technology is approved for sale in the European Union.**